

ABSTRACT OF THE DISCLOSURE

[0033] A preamplifier for correcting for thermal asperity transients in disk drives using magneto resistive read heads. The preamplifier has an input gain stage receiving a signal from the read head and an output buffer outputting a reader output to a read channel that is filtered of thermal asperity transients by a high pass filter positioned between the input gain stage and the output buffer. The high pass filter is voltage controlled based on an input control signal from a filter controller. The filter controller uses a low pass filter functioning as a peak detector to detect peaks in either the input or output voltage of the high pass filter. The low pass filter output is applied to a non-linear function generator generating the control signal for the high pass filter based on an increasing function of the absolute value of the low pass filter output.